

## DATABASE OF BODY SURFACE ECG P WAVE INTEGRAL MAPS FOR LOCALIZATION OF LEFT-SIDED ATRIAL ARRHYTHMIAS

### ABSTRACT OF THE DISCLOSURE

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The present invention relates to classification and localization of arrhythmias. More specifically, a system and method is provided for developing a database of body surface ECG P wave maps for classification and localization of left-sided atrial arrhythmias. The invention includes generating and receiving P wave data in a subject by left atrial pacing or receiving P wave data in a subject during spontaneously occurring or induced left atrial arrhythmias; computing (e.g. potential or integral) maps of the P wave data; classifying the maps specific to a left atrial ectopic origin; verifying the classification procedure; averaging the classified maps into mean maps; and storing and accessing the mean maps in the database. The mean maps of the P wave data in the database can be used to automatically classify and localize P wave data from a patient obtained during a left atrial arrhythmia such as atrial tachycardia, focal atrial fibrillation or orthodromic atrioventricular reentrant tachycardia.

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